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Appendix I

Employment and Labor Income Multiplier Analysis Assumptions

APPENDIX I

Employment and Labor Income Multiplier Analysis Assumptions

A multiplier analysis utilizing IMPLAN PRO (Version 2) was used to generate the estimated employment and labor income impacts of the construction and operation of the Proposed Action and alternatives within the region of influence. The region of influence for the economic impact analysis is the combined regional economy of Lincoln and Clark counties in the State of Nevada. The 1998 IMPLAN data set for these two counties was used, without modifications to any study area data. A type Social Accounting Matrix (SAM) model was constructed, providing the multipliers used in the impact analysis.

Two industrial sectors were used in the analysis: one to estimate the impacts of construction activities; and a second to estimate the impacts of the operation of the facilities of the Proposed Action and alternatives. To estimate the total effects of construction employment IMPLAN *Sector 50: New Utility Structures* was used. The activities associated with the construction of the power plant, access road, wellfield, and water pipeline under all alternatives would fall within major SIC Industry Codes 15 and 16. Within the IMPLAN sector scheme, these SIC industries are matched with the IMPLAN Construction Sectors 48 to 56. Sector 50 was chosen from these potential IMPLAN sectors because this sector most closely describes the activities anticipated to occur during the construction phase of the Proposed Action or alternatives.

To estimate the effects on the regional economy of the operation of a power plant associated with the Proposed Action or alternatives, IMPLAN *Sector 443: Electric Services* was used. The operation of a natural gas-fired electrical power generation facility would fall within SIC code 4911 Electric Services. In the IMPLAN sector scheme report, the SIC industry 4910 matches with IMPLAN *Sector 443: Electric Services*. Part of the SIC industry 4910 also appears within the IMPLAN *Sectors 511: State and Local Electrical Utilities* and *514: Federal Electrical Utilities* that are both government sectors. In this analysis, IMPLAN Sector 443 was used because it matches directly with SIC industry 4910, and the facilities operated under the Proposed Action or alternatives would be privately owned. In addition, the multipliers for Sector 443 are somewhat lower than those of Sector 511, the next most logical sector choice. This selection provided a more conservative estimate of the potential beneficial effects of the Proposed Action or alternatives.

Tables F-1 and F-2 show the employment and labor income multiplier report information for the two industries used in the analysis.

TABLE F-1
Employment Multipliers for Selected IMPLAN Sectors

	Description	Type I Multiplier	Type SAM Multiplier
50	New Utility Structures	1.354757	1.748312
443	Electric Services	1.452192	2.036772

TABLE F-2
Labor Income Multipliers for Selected IMPLAN Sectors

	Description	Type I Multiplier	Type SAM Multiplier
50	New Utility Structures	1.238188	1.461733
443	Electric Services	1.264988	1.493389

In generating the indirect and induced employment and labor income effects for the analysis, the estimated direct employment and labor payroll information provided by Toquop Energy was used as the direct effects. The information is shown in Table F-3 below. Although the construction costs for Alternative 2 are somewhat different than those for the Proposed Action and Alternative 1, Toquop Energy has indicated that the labor force and payroll requirements would be the same. As such, the direct and, therefore, indirect and induced employment and labor income effects would be the same for the Proposed Action and both alternatives.

TABLE F-3
Assumed Direct Employment and Labor Income Effects

Project Phase	Average Annual Employment	Annual Labor Income
Construction	500	34 million
Operations	25	2.5 million

Source: Toquop Energy